Challenging the Current Treatment Paradigm of Androgen-Independent Prostate Cancer

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Widespread prostate-specific antigen (PSA) screening, lower PSA thresholds for performing prostate biopsy, and increased tissue sampling at the time of prostate biopsy have contributed to the trend of diagnosing smaller and lower grade prostate cancers. Despite the trend of detecting cancers earlier in their natural course, prostate cancer remains the second leading cause of cancer-related deaths in the American male population. It is likely that today's aggressive screening efforts will have their greatest impact on prostate cancer death rates in decades to come. The persistently high death rate from prostate cancer indicates that urologists, radiation oncologists, and medical oncologists are currently treating a large group of men with androgen-independent prostate cancers. Until recently, androgen-independent prostate cancer was a death sentence associated with mean survival rates of 1 year. Despite decades of clinical investigation, not a single effective chemotherapeutic agent was identified that increased survival for any stage of prostate cancer. Treating androgen-independent

prostate cancer was frustrating both for the physician and patient; there was only palliative treatment and no hope. In 2004, 2 large-scale, randomized clinical trials were published demonstrating 20% and 24% survival benefits for docetaxel-based therapies when compared to standard-of-care, palliative-based therapy. The report of a treatment that increased survival for men with androgen-independent prostate cancer has revolutionized the treatment of advanced prostate cancer. This supplement, entitled *Challenging the Current Treatment Paradigm of Androgen-Independent Prostate Cancer,* provides a contemporary perspective on managing androgen-independent prostate cancer.

The articles entitled "New Paradigms for Advanced Prostate Cancer" by Daniel P. Petrylak, MD, and "Treatment Options for Hormone-Refractory Prostate Cancer" by Sam S. Chang, MD, FACS highlight treatment options for androgen-independent prostate cancer. These 2 scholarly and comprehensive articles appropriately focus on docetaxel-based therapies. The authors present the safety and efficacy data from the Southwest Oncology Group (SWOG) and Cancer and Leukemia Group B (CALCG) clinical trials and provide a perspective on how to optimally prescribe docetaxel in clinical practice. The articles also discuss other promising chemotherapeutic and immune-based therapies that are under investigation for androgen-independent prostate cancers.

Clinically localized prostate cancer represents disease without evidence of extraprostatic disease on digital rectal examination (DRE) and imaging studies. Clinically localized prostate cancer has been categorized as low, intermediate, and high risk based on serum PSA, DRE, and Gleason score. High-risk, localized prostate cancer is often refractory to localized therapies with or without neoadjuvant or adjuvant hormonal therapy. This implies the existence of occult androgen-independent disease. Mark H. Katz, MD, and James M. McKiernan, MD, in their insightful article entitled "High-Risk, Clinically Localized Prostate Cancer: Is Monotherapy Adequate?", discuss the limitations of localized therapies and a possible role for neoadjuvant, docetaxel-based therapies in this clinical setting.

There are many similarities between prostate and breast cancer as they relate to hormone regulation, incidence, and mortality rates. Despite the lack of a tumor-marker, breast cancer is considerably out-pacing prostate cancer from both an investigative and therapeutic perspective. There are many lessons those of us in the prostate cancer field can learn from our colleagues treating breast cancer. Silvia C. Formenti, MD, is both a radiation oncologist and medical oncologist with a unique perspective on managing breast cancer. Although the outstanding article by Lea Baer, MD, and Dr. Formenti entitled "Breast Cancer Clinical and Translational Research: Analogies and Implications for Prostate Cancer" covers many topics, one of the resonating messages is of the benefits of a multidisciplinary approach to treating breast cancer. I believe those clinicians treating prostate cancer need to adopt a more structured multidisciplinary approach to the treatment of advanced prostate cancer.

We are fortunate to have enlisted this all-star group of internationally recognized experts to contribute to this supplement. The fact that the authors are urologists, medical oncologists, and radiation oncologists sends the important message that all 3 disciplines of medicine have something to offer men with androgen-independent prostate cancer. I am grateful for their scholarly, timely, and comprehensive contributions to this supplement. ■